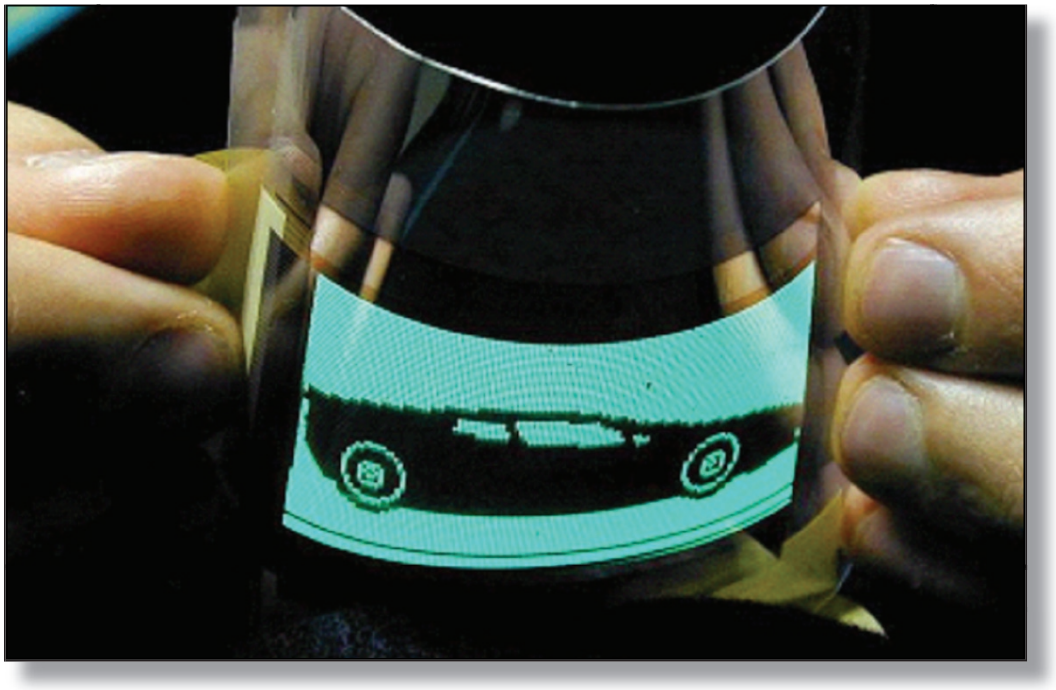
Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

HUMAN EFFECTIVENESS DIRECTORATE TRANSFERS REVOLUTIONARY DISPLAY TECHNOLOGY TO INDUSTRY



The Human Effectiveness Directorate created key technology for a breakthrough electronic display and transferred it to an industrial consortium led by the Universal Display Corporation (UDC) in Ewing, New Jersey.

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Accomplishment

Organic light-emitting devices (OLEDs) are a new class of displays with properties that make them highly attractive for a broad array of military and commercial uses. OLEDs are thin, flat, and lightweight; emit bright light with little power; are readable at very wide viewing angles; and are flexible and transparent.

The directorate-managed, Defense Advanced Research Projects Agency (DARPA)-funded High-Definition System (HDS) program helped create materials, devices, and fabrication processes essential to OLED production. UDC will produce prototypes for evaluation in military avionics by L3 Communications in Marietta, Georgia, and will establish economic viability via partnerships with several companies pursuing consumer electronic applications.

Background

Princeton University, the University of Southern California, Hughes Research Laboratory, and UDC performed the project, which was possible through a grant as part of the HDS program. DARPA provided $5.5M to fund the HDS program, which focused on creating a variety of affordable display technologies capable of displaying digital high-definition television.

Human Effectiveness
Technology Transfer

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-HE-05)